Zero Carbon Resorts

Building Energy Autonomous Resorts
Creating Appropriate Technology Solutions

About

The tourism industry in the Philippines is growing fast, bringing employment opportunities to the region and strengthening the economy of the country. Tourism has, however, a high demand for energy and is responsible for a large amount of carbon emissions. By reducing energy consumption and by using locally available and carbon-neutral resources, the carbon footprint of the tourism industry can be significantly reduced.

Zero Carbon Resorts (ZCR) is a four-year project launched in 2010 with the support of the European Union. With the goal of enabling tourism SMEs in Palawan and other parts of the Philippines to switch from fossil fuel to renewable energy, this initiative focuses on building the capacities of local tourism enterprises to become energy-autonomous, and promoting local production of renewable materials and green technologies.

Zero Carbon Resorts

GREEN TECHNOLOGY CATALOGUE

Project Funded By:

switchasia PROGRAMME

European Union's SWITCH-Asia Program

Project implemented by:

GrAT, PCSD, CIEMAT-PSA, ASSIST

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Introduction to Green Technology Catalogue

Since 2010 the Zero Carbon Resorts (ZCR) project has been bringing about manifold changes and achieving sustainable growth in the tourism establishments in Palawan and other areas in the Philippines, through the financial support from the European Commission. Hotels, resorts, and restaurants that would like to make a business success with less environmental impact and better energy supply are joining the ZCR.

Following the energy conservation measures proposed during the “Reduce” phase of the project (mainly year 2010), more technically oriented solutions have been suggested and demonstrated in the “Replace” phase (year 2011). A switch from fossil fuel driven products to products which run with renewable energy or which consume less electricity than current used solutions is one of the key targets of the project.

This document, entitled “Green Technology Catalogue”, is part of the outputs of the Replace phase, containing about a number of products and technologies which contribute to energy and resource saving. Companies in the tourism sector can use this catalogue as a guide to replace outdated and inefficient equipment with the state-of-the-art technologies for energy and cost savings. The products have been researched to be available in the Philippines. However, it should be noted that the technical performance and some data of the products expressed in the catalogue could contain incorrect or not updated information. More detailed information can be obtained from the individual companies.

The devices are categorized into different energy services required in the tourism industry: cooking, domestic hot water generation, cooling (air conditioners and fans), lighting, refrigerating (fridges and freezers for kitchens and guest rooms), and other devices. Related information such as manufacturers contact details, market price, technical functions, energy saving potential, and other environmental benefits have been described.

Digital copies of the catalogue will be distributed among the registered Zero Carbon Resorts users. If you find any incorrect information of the listed products, or if you would like to inform the ZCR members of other alternatives with similar or better performances and features, please send the information to zcr@grat.at or use the Members’ Forum of the Zero Carbon Resorts homepage (www.ZeroCarbonResorts.eu).

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COOKING

Rice Husk Stove

Product name:

Manufacturer's/company's name:

Address : LOPEZ QUEZON

URL:
http://www.sulit.com.ph/index.php/view+classifieds/id/4147199/RICE+HUSK+STOVE

Phone / fax: 0939-572-6656

Available in Philippines? yes

Price **sulit.com** 1500 PHP | **Date:**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Very economical,
Alternative used in times of crisis
Smokeless, odorless
Flammable and easy burning
Can cook quickly
Fueled by rice husk
Powered by 10volts converter

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Wood Stove

Product name: Eco-Kalan

Manufacturer's/company's name: Pagla-um Missions c/o Rebeca Vermeer

Address :
Felipa Beach, Mangnao, Dumaguete City

URL: http://www.eco-kalan.com/

Phone / fax: info.ecokalan@telus.net

Available in Philippines? (If not obvious, "to be checked")
Available in Dumaguete City & Negros Oriental

Price900 PHP

Date: 2006

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

An eco-KALAN is a portable stove made of clay consisting of three components: the outer shell (kalan) on which the cooking pot sits; the inner chamber (rocket elbow) where the combustion takes place; and a shelf with air holes to hold the fuel. The space between the kalan and the combustion chamber is filled with wood ash for insulation.

The economic benefits of the eco-KALAN include:

- Jobs in the production, transportation and marketing of the eco-KALAN.
- Jobs in the conversion to fuel of coconut industry waste by-products.
- Jobs in the development of tree farming operations for sustainable supply of firewood and for offsetting carbon emissions from the use of the eco-KALAN.*
- More profitable restaurants, eateries, and roadside or home food businesses as energy costs drop with the use of eco-KALAN.
- Incremental revenues from waste by-products of coconut-based industries such as fresh coconut and copra production and virgin coconut oil extraction.
- Investment dollars flowing into the Province of Negros Oriental and other regions in the Philippines.
- Increased tourism in the country.
- Most cost effective, environmentally friendly stove for developing countries.

Useful technical details (kW…)

Energy-saving potential

- Produces little smoke, if any, and only during start-up.
- Delivers hot, fast cooking without exposure to intense heat.
- Consumes up to 80% less firewood than traditional kalans and other open-fire methods of cooking.
- Can utilize all types of fuel used in open-fire cooking, e.g., wood, twigs, branches, charcoal, bamboo, and any part of the coconut tree such as stems, husks, shells, and leaves.
- Saves trees through its high fuel efficiency and versatility.

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Mayon Turbo Stove

Product name: Rice Hull, Corn Cobs, wood chips & Nut Shell Stove

Manufacturer's/company's name:
R.E.A.P. Canada Registered Charity No: 10787-7839

Address:
21,111 Lakeshore Road Centennial Centre CCB13 Ste-Anne-de-Bellevue, QC H9X 3V9 Canada

URL: http://www.reap-canada.com/bio_and_climate_3_3_1.htm

Phone / fax: (514) 398-7743 Fax: (514) 398-7972 Email: info@reap-canada.com

Local Manufacturer's/company's name:
Sustainable Rural Enterprise

Address:
Aklan State University, Main Campus
Banaga, Aklan, Philippines

URL:

Phone / fax: (63-36) 2676811; (63-36) 268 4765

Available in Philippines? (If not obvious, "to be checked")
Available in the Visayas & Bicol Region

Price $20 **Date:** 2000

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

High efficiency and clean combustion, Convenient to use, Portable and lightweight, Uses a variety of biofuels, Safety: a ring structured holder provides excellent pot stability, Holistic Use of Fuel: ashes can be reused as a soil conditioner, fertilizer, and pest repellent around plants

Useful technical details (kW…)
By utilizing agricultural residues, the MTS reduces the following:

- the amount of firewood, charcoal and LPG burned, household expenditures, greenhouse gas emissions, the firewood-collecting burden on women, household air pollution, deforestation rates

Energy-saving potential

- Economical: Average annual cooking costs and stove purchase is approximately $15-20 USD for the MTS, compared to $60-200 USD for cooking with purchased firewood, charcoal and LPG
- Low fuel consumption: Approximately 2.5 sacks (25 kg) of rice hull/family/week

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Rice Husk Gas Stove 14 D

Product name:

Manufacturer's/company's name:

Address : Mr. Michael Belonio, BEST Enterprise
Marketing Associate, Biz.bulacan@gmail.com

URL: http://sulit.com.ph/4028309

Phone / fax: 09172032510

Available in Philippines? yes

Price sulit.com 2800 PHP

Date:

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

A bigger version of the Rhgs 12 D. This model provides household with a much powerful power output compared to the previous model published. Coupled with a bigger diameter reactor and fan. This unit will enable you to boil, cook and fry, faster than the previous model. Still, even though it is designed to be bigger, we have tried our best to put its price cheaper and affordable. For a standard price of 2400 pesos only and with a free shipping policy included, anywhere in the Philippines, This stove is determined to provide us, with an alternative way of cooking, business opportunities and cleaner environment. From saving your money to prolonging your LPG consumption, this stove is basically your ally during this economic crisis.

Useful technical details (kW…)

Energy-saving potential

1. Less carbon emission
2. Utilize Rice huskagri-waste
3. Soot-less cooking
4. Controllable flame
5. Earn P400 per unit by selling and distributing the product
6. Financial saving advantage
7. Prolongs your LPG consumption
8. Cheaper and Handy compared to other rice husk stoves

Environmental label obtained

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Rice Husk Gas Stove 12 D

Product name:

Manufacturer's/company's name:

Address : Mr. Michael Belonio, BEST Enterprise
Marketing Associate, Biz.bulacan@gmail.com

URL:

Phone / fax: 09172032510

Available in Philippines? yes

Price sulit.com 2400 PHP

Date:

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The Rice husk Gas Stove 12-D BEST Enterprise has its own way to serve you:
1. It uses Rice Husk as fuel (Cheap, abundant in rural areas)
2. It can be used together w/ LPG to prolong your LPG consumption
3. It gives you opportunity to start a Rice husk fuel business, by packing, distributing and selling rice husk in the urban areas (where there is scarce or no rice husk available at all)
4. It can provide you extra income by giving you profit when you sell the stove in your area
5. If rice husk is abundant in your place, it will provide a useful way of disposing this agri-waste product.
6. It is Cheaper and handy compared to other rice husk gas stove models.
7. etc.....

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Biogas Stove

Product name:
BOSHIMA Biogas Stove

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price Single Burner PhP1,000	**Date:** 12-11-11
Price Double Burner PhP1,500	**Date:** 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

BOSHIMA Biogas Stove is an equipment to convert biogas energy to cook food. It is just like a conventional stove but utilizes biogas (a renewable energy source) as fuel. No more problems w/ brownouts. The product is particularly laminated w/ anti-corrosion layer & is stainless**.**

Useful technical details (kW…)

- Heat load: 2.8kW
- Pressure load: 1,600Pa
- Heat efficiency: >55%
- Successful ignition: >80%

Energy-saving potential

- Heat efficiency: >55%

Environmental label obtained

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Plant Oil Stove

Product name: PROTOS

Manufacturer's/company's name: Plant Oil Technology Center

Address:

Prof. Roberto C. Guarte, PhD.
Project Director
Plant Oil Stove Project, Philippine Component
Leyte State University
College of Engineering and Agri-industries
ViSCA, Baybay, Leyte
Email: quarte_rc@yahoo.com

URL:

Phone / fax: (053) 563-7117

Available in Philippines
Yes in the Visayas area

Price PhP 2,000 (single burner)
PhP 3,400 (double burner)

Date: 2006

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Power range = 1.6-3.8 kW
- Fuel source = diverse plant oil e.g. coconut oil, jatropha oil, cotton seed oil, peanut oil, etc, and even used vegetable oil from restaurants
- Emission = more than ten times lower than with kerosene &LPG, and almost 70 times lower than wood and charcoal
- CO2 balance = neutral, renewable fuel source

Useful technical details (kW…)

The plant oil is filled into the tank. Through an air pump, the tank is pressurized to about 1-3 bars. Following standards procedure, the vaporizer/burner is pre heated with a 40 ml denatured alcohol, or using a 40 cm length of tissue paper or 5 g of cotton, half soaked in a 20 ml plant oil, to covert the plant oil from liquid to a gaseous form.

Energy-saving potential

- Fuel usage = 2 liters per week for a family of 4-5, or about 100 liters per year.
- gas emissions of Carbon Dioxide and other hydrocarbons are significantly reduced and heat utilization efficiency is higher by about 30% to 40%

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Wood Stove

Product name: G-3300 Energy Efficient Indoor Cookstove

Manufacturer's/company's name:
Envirofit Philippines Foundation, Inc.

Address :
Unit 2 DLI Generic Center Bldg.
153 P. Cruz St., Mandaluyong City

URL: www.envirofit.org

Phone / fax: (02)346-4671

Available in Philippines? Yes

Price PhP 2,500

Date:
August 2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- With Enviroflame combustion technology
- Durable, patented metal alloy combustion chamber
- Maximizes stove life, quality control, safety & heat transfer

Benefits of using Envirofit Energy Efficient Stoves

1. Energy Efficient – uses up to 50% less wood/charcoal as compared to traditional clay stoves
2. Promotes sustainable utilization of forest resources
3. Low emission – reduces emissions by up to 80% (reduces incidence of respiratory related illness especially on children)
4. Clean – smokeless & does produce excessive soot resulting in a cleaner kitchen
5. Faster cooking time – up to 40% improvement in cooking time
6. Reduced fossil fuel dependency
7. Durable & long lasting – special alloy combustion chamber rated at 5++ years (minimum life)
8. Low maintenance& safe to use – no serviceable parts that could cause gas leak and/or fire if not maintained properly
9. Abundance of inexpensive biomass fuel – stove user can purchase fuel (wood/charcoal) in retail
10.

Useful technical details (kW…

Fuel consumption

Burn Rate High Power:	12.3g/min +/- 1.6g/min
Burn Rate Low Power:	7.5g/min +/- 0.5g/min

Energy-saving potential

- Up to 60% fuel savings
- Up to 80% emission reduction (84% CO reduction & 75% PM reduction)
- Up to 50% time savings

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?	
Product name: CH 2200 Fuel Efficient Charcoal Stove	
Manufacturer's/company's name: Envirofit Philippines Foundation, Inc.	
Address : Unit 2 DLI Generic Center Bldg. 153 P. Cruz St., Mandaluyong City	
URL: www.envirofit.org	
Phone / fax: (02)346-4671	
Available in Philippines? Yes	
Price PhP 2,300	**Date:** August 2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Benefits of using Envirofit Energy Efficient Stoves

11. Energy Efficient – uses up to 50% less wood/charcoal as compared to traditional clay stoves
12. Promotes sustainable utilization of forest resources
13. Low emission – reduces emissions by up to 80% (reduces incidence of respiratory related illness especially on children)
14. Clean – smokeless & does produce excessive soot resulting in a cleaner kitchen
15. Faster cooking time – up to 40% improvement in cooking time
16. Reduced fossil fuel dependency
17. Durable & long lasting – special alloy combustion chamber rated at 5++ years (minimum life)
18. Low maintenance& safe to use – no serviceable parts that could cause gas leak and/or fire if not maintained properly
19. Abundance of inexpensive biomass fuel – stove user can purchase fuel (wood/charcoal) in retail

Useful technical details (kW…)

Energy-saving potential

- Up to 50% fuel savings
- Up to 65% Carbon Monoxide reduction
- The world's most fuel efficient charcoal stove

Environmental label obtained

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Cooking Stove

Product name: DIY improved cooking Stove

Manufacturer's/company's name: Zero Carbon Resorts Project

Address: Unit 1504 Sunview Palace T.M. Kalaw Ave. cor M.H. Del Pilar St., Malate, Manila

URL: www.zerocarbonresorts.eu

Phone / fax: (02) 559-9712

Available in Philippines
Yes

Price PhP 100 to 500

Date: Sept. 2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Can be made cheap/low cost by using recycled materials. Refer to ZCR handbook on improved cooking stove Manual.

Benefits from Improve cooking stove

- Uses 30-70% less biomass fuel
- Efficient combustion ensures less emissions so less pollution
- Reduction in green house gases
- Can even use cardboard and old newspapers as fuel
- More safer to use

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Biogas Rice Cooker

Product name: BOSHIMA Auto Biogas Rice Cooker

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP 1,500 | **Date:** 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

BOSHIMA Auto Biogas Rice cooker is a convenient appliance that can help one run a restaurant, business or household kitchen smoothly w/ renewable energy – Biogas. After cooking, the rice will automatically be kept warm & fresh for hours until it's ready to be served. No more problem w/ brownouts. LPG can also be used as fuel in case of low biogas supply.

Useful technical details (kW…)

- Default Gas Pressure: 1600Pa
- Max rice volume: 4L-5L
- Default Heat Flow: 1.0kW

Energy-saving potential

- After the initial investment & some regular maintenance of the system, the source of energy w/c is the biogas digester is relatively free.
- No need to use electricity.

Environmental label obtained

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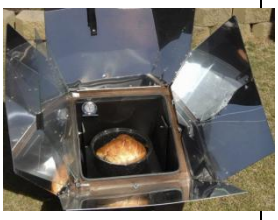
Sun Oven



Product name: GLOBAL SUN OVEN

Manufacturer's/company's name: Sun Ovens International, Inc.

Address: 39W835 Midan Dr.; Elburn, IL. 60119 USA

URL: http://www.sunoven.com/

Phone: 1-630-208-7273
Toll Free: 1-800-408-7919
fax: 1-630-208-7386

Available in Philippines? yes

Price 12727 PHP http://www.sunoven.com/cart/index.php?main_page=products_all	**Date:** 08.08.2011
Price $259.95 http://eartheasy.com/green-home/green-kitchen/global-sun-oven	**Date:** 08.08.2011

http://eartheasy.com/media/catalog/product/cache/1/thumbnail/9df78eab33525d08d6e5fb8d27136e95/g/l/global-sun-oven-6.jpg

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Bakes, boils, or steams any kind of food with the power of the sun - no fuel needed! At only 21 lbs, it can easily be brought along camping, or at picnics. It's also great in case of a power failure. Some customers like these because they can bake in the summer without their oven heating up their home.
reaches temperatures of 360 to 400 degrees Fahrenheit!
totally safe - no danger of fire - never burn dinner again!
saves energy - no gas or electricity or any kind of fuel needed.
versatile - easy-to-use, portable as a small suitcase!
cooks anything you can cook in a conventional stove, in the same amount of time
durable - estimated life of 20+ years; can last a lifetime with care
environmentally friendly - zero impact cooking
sturdy construction, and built in thermometer
Attached one piece collapsible reflectors
Spill-proof levelator
Self-contained leveling leg
Dimensions:
Back of outer box is 14" high, the front is 9". Back of oven chamber (the INSIDE of the oven) is 11" high, the front is 7" (average depth 9"). Door opening is 14" square. Weight is 21 pounds.

Some accessories available

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Microwave Oven

Product name: Samsung AMW 83E-WB

Manufacturer's/company's name: Samsung

Address: Manila

URL: http://www.samsung.com/ph/index.html

Phone / fax: 1-800-107267864 [PLDT] , 1-800-8-7267864 [Globe landline and Mobile], 1-800-3-7267864 [Digitel]

Available in Philippines Yes at Metro Manila Department Stores

Price: PhP 4,500

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Various Cooking Mode, Clock available, Max Cooking Time 99 min 99 sec, 6 Power Levels, 2 Cooking Stages, Weight/Serving Control available, 1 min/30 sec Plus available, Auto Defrost program, Auto Cook, Reminder End signal Sound available, 12 Hours Clock System options, Epoxy resin Interior

Useful technical details (kW…)

- 0.8 cu.ft Capacity
- Microwave only and CMO
- MWO Power Source
- 800Watts Output
- LED Display
- Touch Control
- Push Button Opening
- Microwave Turntable

Energy-saving potential
Energy consumption/year:

Environmental label obtained

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Hot Water

Pressure Solar Collector

Product name: ONS-SPC01-1

Manufacturer's/company's name: ONOSI

Address : HainingOupairineng Solar Water Heater Co.,Ltd
ADD:Wanshou Industry Zone, Yanguan Town, Haining City ,Zhejiang ,China

URL: www.onosisolar.com

Phone / fax: 0086-573-87718911/ 0086-573-87718900

Available in Philippines? yes

Price for a family of four costs in the range of $5000 (212'834 PHP) - $6000 (255'401 PHP) before state and federal rebates/incentives.	**Date: 04.08.2011**
Price @	**Date:**

http://www.chinasolarwaterheaters.net/images/products/20107301506538 73w800h800urineng/pressure-solar-collector.jpg

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)
Pressurized solar collector, could assemble on roof and on flat roof, Harmony with the building perfectly. Heat pipe is a kind of copper pipe with inner anti-freezing inorganic working medium, it works well even at an ambient temperature ≤ (-) 45 and it possesses characteristics such as long lifespan (more than 15 years), anti-insolation (250), anti-freezing (-45), low start-up temperature (≤30), and a high thermal transmission coefficient (10000 times comparing with pure copper), it is a real special heat pipe suiting to be used in solar field.

Useful technical details (kW…)
530.4 W/m2 Evacuated Tube Basic Specifications:

Leng h (nominal)	1500mm /1800 m
uter tube diameter	58mm
Inner tube diameter	47mm
Glass thickness	1.6mm
Thermal expansion	3.3x10-6 oC
Mate ial	Borosilicate Glass 3.3
Vacuum	P<5x10-3 Pa
Stagnation Temperature	>200oC
Heat Loss	<0.8W/ (m2oC)
Maximum Strength	0.8MPa

Environmental label obtained
Solar Keymark

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Solar Collector

Product name: **Vitosol 300-F**

Manufacturer's/company's name:
ViessmannWerke GmbH & Co. KG

Address : Viessmannstraße 1, 35108 Allendorf (Eder), Germany

URL: http://www.viessmann.com/com/en

Phone: + 49 6452 70-0 **fax:** + 49 6452 70-2780

Available in Philippines? yes

http://www.viessmann.de/etc/medialib/internet-global/images/productbox/solar_systems.Par.8793.Image.ImagesrcML.jpg/solar_systems.jpg

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The new Vitosol 300-F is a high performance flat-plate collector. It is ideal for DHW heating and central heating backup. Permanent operational reliability and long service life.

Through its anti-reflex glass, the highly selectively coated copper absorber utilizes the intensive solar irradiation particularly well. The meander shape of the absorber ensures an even and reliable flow through the entire collector. The result is the assurance of high solar energy utilization and efficiency.

Up to 12 collectors can be linked in parallel.

High performance flat-plate collector with anti-reflex glass for DHW heating and central heating backup

Universal application for rooftop and freestanding installation, either in vertical or horizontal orientation – up to 12 collectors can be connected in parallel

High efficiency through highly selectively coated absorber and cover made from translucent anti-reflex glass.

Permanently sealed and high stability through all-round folded aluminum frame and seamless pane seal

Puncture-proof and corrosion-resistant back panel made from zinc-plated sheet steel

Easy to assemble Viessmann fixing system with load tested and corrosion-resistant components made from stainless steel and aluminum – standard for all Viessmann collectors

Useful technical details (kW…)

Efficiency: 80,3 – 83,4%

W/(m^2*K): 3,66-3,77, W/(m^2*K^2): 0,0169-0,0156

Reference: http://www.viessmann.de/etc/medialib/internet-global/pdf_documents/pdf-datenblaetter-2009.Par.67015.File.File.tmp/DB-5368803_05-2010.pdf

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Solar Panel

Product name: BOSHIMA Polycrystalline Solar Panel

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP200/watt

Date: 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

BOSHIMA Polycrystalline Solar Panel is a panel board designed to absorb the sun's rays as a source of energy for generating electricity.

Useful technical details (kW…)

The product is available from 5watt-peak to 100 watt-peak.

Energy-saving potential

After the initial investment & some regular maintenance of the system, the source of energy w/c is the sun is relatively free.

Environmental label obtained

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Solar Charger

Product name: PWM Solar Charge Controller

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP 2,500 | **Date:** 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The solar charge controller is a battery control unit that protects the battery from over charge & over discharge. The product has a "PWM" mode. PWM stands for Pulse Width Modulation. PWM is often used as one method of float charging. Instead of a steady output from the controller, it sends out a series of short charging pulses to the battery - a very rapid "on-off" switch. The controller constantly checks the state of the battery to determine how fast to send pulses, and how long (wide) the pulses will be. In a fully charged battery with no load, it may just "tick" every few seconds and send a short pulse to the battery. In a discharged battery, the pulses would be very long and almost continuous, or the controller may go into "full on" mode. The controller checks the state of charge on the battery between pulses and adjusts itself each time.

Useful technical details (kW…)

- Available in 3Amp, 5Amp, 10 Amp, 15Amp, & 20 Amperes.

Energy-saving potential

Environmental label obtained

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Solar Collector

Product name: SOLARHART (Solar Water Heating System)

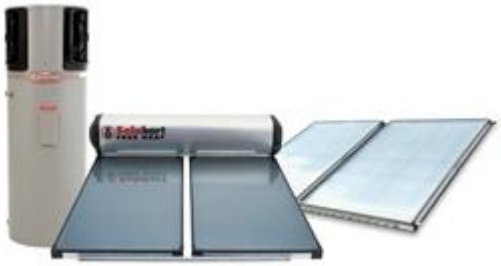
Manufacturer's/company's name: SOLARHART

Address: 730 ANDA COR. SOLANA & MAGALLANES STS. INTRAMUROS, MANILA

URL:http://www.solanda.com

Phone: 527-8261 / 301-0530 Fax Nos.: (632) 527-1314 to 15

Available in Philippines?
Yes



Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Stylish slim line design, hot water all year round, 24/365, world most advanced technology, high density insulation, superior protection, corrosion protection, maintenance free, proven high performance

Useful technical details (kW…)

Energy-saving potential

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Dishwasher 1

Product name: DV 270.2

Manufacturer's/company's name: Meiko

Address : Mezzanine Floor, Jemtee Building, 677 Boni Avenue, RP - Mandaluyong City
Metro Manila

URL: http://www.meiko.us/

Phone +63 2 8127768 **fax:** +63 2 8452516

Available in Philippines? yes

http://www.meiko.at/upload/Meiko/Web/Images/Products/1123495818_500x500.jpg

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Meiko's DV 270.2 combines the power and flexibility of a true pot-and-pan washer with the easier loading of a door-type, pass-through dishwasher. Upper and lower oscillating wash arms and two powerful 3 hp wash pumps guarantee outstanding ware coverage as well as enhanced performance. And with the ability to hold 22 standard 18x26" sheet pans every cycle, the DV 270.2 has the capacity to meet the most demanding needs.
The DV 270.2 offers three variable programmed time cycles for various soil loads. Meiko's exclusive "Mike 2" programmable controller simplifies operation and service diagnostics. Other unique features include our "Active Plus" wash tank soil removal system, "Soft Start" fine china and glassware protection system, "Aqua-Stop" water leakage protection system, and the "Auto Safe" temperature control system. Together with the unit's internal booster heater and power rinse pump, "Auto Safe" provides constant, guaranteed temperature and pressure for the wash and final rinse cycles.

Useful technical details (kW…)

Dimensions: Width: 1490mm; Depth: 995mm; Height 1760mm; Height when the hood is open 2515mm; Entry height 650mm; Basket dimensions 1310 x 690mm
Performance: Program cycles * 120/240/480sec; Baskets per hour (theoretical) 30/15 /7/h; Pump motor 2x2, 2 kW; Tank filling 100l; Rinsing process 9 l./basket; Tank heating 9 kW
* If the machine is connected to a cold water supply and / or if there are short change-over times of baskets, the wash cycles needed to achieve hygienic rinse temperatures may increase.
Built-in boiler: 10°C inlet temperature 18 kW; 45°-60°C inlet temperature 12 kW
Total connected load - three phase 3 NPE 400 V~ 50 Hz: 10°C inlet temperature 22,8 kW: 45°-60°C inlet temperature 16,8 kW

Energy-saving potential
See at http://www.meiko.us/images/stories/pdf_files/specs/dv270.pdf

Environmental label obtained
Energy Star Partner, U.S. Green Building Council

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Dishwasher 2

Product name: **DV 200.2**

Manufacturer's/company's name: Meiko

Address : Mezzanine Floor, Jemtee Building, 677 Boni Avenue, RP - Mandaluyong City, Metro Manila

URL: http://www.meiko.us/

Phone +63 2 8127768 **fax:** +63 2 8452516

Available in Philippines? yes

http://www.meiko-uk.co.uk/upload/Meiko/Web/Images/Products/1087281624_500x500.jpg

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Meiko's door-type DV 200.2 accommodates two standard 20" racks per cycle. This provides a machine that fills the operating capacity gap between a traditional door-type unit and a small rack conveyor machine.

The DV 200.2's state-of-the-art dishwashing technology offers standard features and benefits currently unavailable in the door-type dish machine market. Increased rack capacity and low water consumption not only reduce operating costs for the end user, but also provide enhanced performance and cycle flexibility. Meiko's exclusive "Mike 2" programmable controller simplifies operation and service diagnostics. Other unique features include our "Active Plus" wash tank soil removal system, "Soft Start" fine china and glassware protection system, "Aqua-Stop" water leakage protection system, and the "Auto Safe" temperature control system. Together with the unit's internal booster heater and power rinse pump, "Auto Safe" provides constant, guaranteed temperature and pressure for the wash and final rinse cycles.

Useful technical details (kW…)

Dimensions Width 1180 mm; Depth 750 mm; Height 1470 mm; Total height with opened hood 1965 mm; Entry height 440 mm; Basket dimensions 2 baskets 500 x 500 mm
Capacities: Cycles * 60/90/210 Sek.; Theoretic basket capacities; 120/80/34/h; Pump motor 2 x 0,73 kW; Tank content 54 l; Final rinse 5,2 ltr./Program; Tank heating 4 kW
Built-in boiler: 10° inlet temperature 18 kW; 45° inlet temperature 12 kW
Total connected load for three phase current 3NPE 400V-50Hz: 10° inlet temperature 19,9 kW; 45-60° inlet temperature 13,9 kW
Type of protection: IPX5

Energy-saving potential
See at http://www.meiko.us/images/stories/pdf_files/specs/dv200.pdf

Environmental label obtained
Energy Star Partner
U.S. Green Building Council

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COOLING – Air Conditioner

Solar Assisted Aircon; Heat Recovery Tank

Product name: SednaAire; Cogenaire; Empire Sun Solar water heater; Edward Marcs PV system

Manufacturer's/company's name: OEM

Address: 2F Timog bldg., 28 Eugenio Lopez St. , Quezon City

URL: www.edwardmarcsphilinc.com
Email: info@edwardmarcsphil.com

Phone / fax: (+63 2) 9221371; (+63 2) 9221658

Available in Philippines? yes

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

1. Solar AssitedAircon is another innovation in solar thermal and air-conditioning technology that provides savings range from 30-50%, utilizing a solar vacuum tube collector that absorbs sun's heat, ambient heat and heat blown by the condenser to assist in the superheating of the refrigerant to be used in the cooling process.
2. Heat recovery tank water heater is an appliance that can be attached to a conventional split type or a solar assisted aircon to produce hot water while the aircon is running.
3. Empire Sun Solar Water Heater has 4 types, Non-pressure type, Heat Exchanger type; Compact Pressure and Separate tank type depending on client's requirement.

Useful technical details (kW…)

- Solar Assisted Aircon consumes 0.8kW/ TR compared to conventional 1.2kW/ TR
- Heat recovery tank – free hot water from split type aircon

Energy-saving potential

1. Solar Assisted AC - 30-50% savings
2. Heat Recovery Tank water heater - 90 – 100% savings
3. Solar Water Heater - 90-100% savings

Environmental label obtained

Green choice on process

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Air Condition (Stand Alone)

Product name: Whynter ARC-12S 12000 BTU Eco-friendly Portable Air Conditioner

Manufacturer's/company's name: Whynter LLC

Address: 12316 Bell Ranch Drive Santa Fe Springs, CA 90670-3356

URL: http://www.whynter.com/default

Phone / fax: (562) 946-9800

Available in Philippines?

Price	**Date:**
http://www.imarketcity.com/whar12btuecp.html 363,00€	04.08 2011

http://www.whynter.com/productdetail/air_comfort/portable_air_conditioners/302

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Model: ARC-12S; Platinum color, ECO-FRIENDLY CFC free GREEN R-410A refrigerant
Lead free RoHS compliant components, Patented auto drain function fully exhausts all condensate automatically in most environments, Three operational modes: Air conditioner, fan or dehumidifier
Digital and remote control, LCDI (Leakage-Current Detection and Interruption) plug
3 fan speeds; Carbon air filter and washable pre-filter, Full thermostatic control (61°F - 89°F)
Casters for easy mobility; 24 hour programmable timer, Auto restart after power outage
Extendable exhaust hose (up to 49"), Upgraded Plastic window kit included; Window kit length: Max. 36", Refrigerant: R-410A

Useful technical details (kW…)

12,000 BTU Cooling
Dehumidifying Capacity: 91 Pts / day
Noise level (dBA): < 52.5
Air Flow (at high speed): 320 m3/h
Maximum power consumption: 1080 W / 9.5 A
Power supply: 115 V / 60Hz / 1 Phase
Unit dimensions: 17" W x 15.5" D x 31" H
Package dimensions: 20" W x 19" D x 35" H
Net weight: 62 lbs
Gross weight: 78 lbs

Environmental label obtained

Eco-Friendly

RoHS COMPLIANT

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Air Conditioner (Stand Alone)

Product name: DeLonghi PAC T90 Eco Portable Air Conditioner

Manufacturer's/company's name:

Address: 77 Scout Fuentabella St. Brgy. LagingHanda, Quezon City

URL: http://www.delonghi.com/ph_en/agency/

Phone: +632 376 – 5621/ 376 – 5622 / 376-5183
fax: +632 376 - 5623

Available in Philippines? yes

Price	**Date:**
http://www.megaking.nl/products/Delonghi-PAC-T90-8.000-Btu-%7B47%7D-80m3-ECO-ZUINIG-%26-Stil.html 339,00€	05.08.2011

http://de.shopping.com/DeLonghi-PAC-T-90/info

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)
The DeLonghi range includes a number of air conditioning devices for varying room sizes. They are all portable, allowing you to cool only the room you are occupying. The PAC T 90 ECO, shown with this article, has the highest energy efficiency rating, "A", according to the European standard.

Most of the DeLonghi air conditioning devices also condition the air on all levels: they are fully functional as dehumidifiers, including hydrostat so relative humidity levels can be set by the user. They can be used in the dehumidification mode alone, which is often enough to make a room feel comfortable. They are also outfitted with 3M electrostatic air filtration technology, so they clean the air which they circulate. The fan has an auto-function device to optimize fan speed based on the current room conditions, and there is a timer so that night-time function can be set.

Useful technical details (kW…)
Type: Portable ; Dehumidifier: With Dehumidifier Functionality
Cooling Capacity: 8500 BTU/hr
Energy Efficiency Rating: 2.61 EER
Remote Control: Without Remote Control
Fan Speeds (Cooling): 2 ; Cooling Watts: 2320 / 2493
Heating Watts: 1950 ;Voltage: 230 / 230 ; Moisture Removal: 2.2 Pt/h
Swing Louvers: Up / Down ; Filter: Reusable ; Air Flow: 200 CFM
Width: 19.49 in.; Depth: 16.14 in.; Height: 37.01 in.

Energy-saving potential

Environmental label obtained

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Portable Air Conditioner

Product name: Portable Air conditioner

Manufacturer's/company's name: Supercool Air-conditioning Center

Address:223 Calvo Building223 Escolta 1000 Manila, Philippines Manila 1100

URL:

Phone: 63-2-2414744/0063 2 2414744
fax: 63-2-2432948

Available in Philippines? yes

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- ECOLOGICAL PROGRAMME - The air-conditioner using a completely natural and non-toxic fluid: the propane R 290.
- It is able to cover rooms up to 130 m3.
- Separate dehumidifying function: removes up to 40.8 liters/day of excess moisture
- EXCLUSIVE AIR CLEANING SYSTEM
- Electronic controls with microprocessor
- IR remote control.
- FULL AUTO function: the computer feels the room temperature and decides hoe the appliance has to operate, whether it is necessary to cool, dehumidify or provide only a fan effect.
- Electronic timer and room thermostat.
- AUTO DIAGNOSIS SYSTEM.
- AUTOFAN: the appliance registers the room temperature and automatically ensures the optimum speed ventilation.
- SLEEP Function: the computer directs Pinguino during the night to maintain the correct temperature and guarantee the quietest operation.
- Only fan function
- 3-speed ventilation + SILENT.
- 3-meter long casing and quick connections for ease of installation.
- Outdoor unit is equipped with castors for improved portability.

Useful technical details (kW…)

Type: Portable; Dehumidifier: With Dehumidifier Functionality
Cooling capacity: 12700 Btu/h

Energy-saving potential

Environmental label obtained

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Split Type Air-Conditioner

Product name: Slip Type Air – Conditioner AH-AP24LMF

Manufacturer's/company's name: Sharp Philippines

Address : Km. 23 West Service Road South Super Hi-way
Alabang, Muntinlupa City, Philippines

URL: http://www.sharp.ph/

Phone / fax: (63) (02) 842-1371/ Fax. No.: 842-0530

Available in Philippines? yes

Price	**Date:**
http://www.buynowpinoy.com/ap12lmf-p-390.htmlP34,361.00	05.08.2011

http://www.sharp.ph/products.php?idc=131

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Features
> Increased virus elimination performance, Deodorizes at double the speed of air purifiers, Eliminates 99.9% of airborne viruses, bacteria, allergens and other harmful elements, Generates Plasmacluster ions at higher densities, Prevents the growth of molds, Winner of the Invention Prize at the 2008 National Invention Awards (Japan), Patented by Sharp, Suitable for commercial/business use

Useful technical details (kW…)

Specifications

Model	AH-AP12LMF
Horse Power Rating	1.5 HP
Cooling cap (kj/ h)	12579
Rated Input (W)	1,084W
EER (W)	11.6
Power Source (V)	230V
Frequency (Hz)	60Hz
Air Quality	Plasmacluster Ion
Timer	12H On/ Off
Dimension (Indoor)	860x292x205mm
Dimension (Outdoor)	730x540x250mm

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Window Type Air Conditioner

Product name: 1.5 HP Window type Air Conditioner AF-A1500CR

Manufacturer's/company's name: Sharp Philippines

Address : Km. 23 West Service Road South Super Hi-way
Alabang, Muntinlupa City, Philippines

URL:http://www.sharp.ph/

Phone / fax: (63) (02) 842-1371/ Fax. No.: 842-0530

Available in Philippines? yes

Price	**Date:**
http://www.philgift.com/ge_aev12kb.htm 510,95€	05.08.2011

http://www.philgift.com/ge_aev12kb.htm

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Features
> Power off memory
> Mechanical Control
> Cooling Only
> Top Discharge

Pre-coated Aluminum Finish (PFC) prevents rust and corrosion from occurring
Washable Anti-Bacterial Filter
3 Fan Speed; Auto Air Swing; Detachable Grille Type
Rotary Type Compressor ; Manual Control
Cooling Capacity : 13,000kj/h; Area Capacity : (sqm) 24
EER: 10; Sound Level: (dba)50
Dimension(wxdxh) : 560x600x375mm; Power Input : 1,300 W

Useful technical details (kW…)

Specifications

MODEL	AF-A1500CR
CAPACITY	12000 BTU
EER	9.1
POWER SUPPLY	220-230V ~ 60Hz
DIMENSION (WxDxH)	600x560x380 (mm)
APPLICATION AREA	18-29 m2
NET/GROSS WT.	39/43 (kg)
CONTROL TYPE	Remote Control

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Window Type Air Conditioner

Product name: Window Air Conditioning 2.8kW, 9700 Btu (ECO933W)

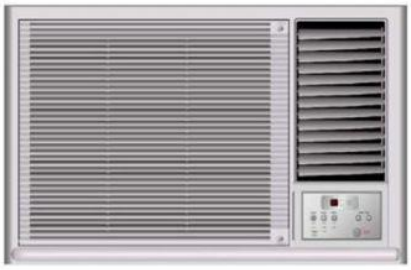
Manufacturer's/company's name: eco air

Address : Unit 7 Propeller Park, 400 North Circular Road, London NW10 0AB

URL: http://www.ecoair.org/

Phone / fax: 020 8459 2458 , 020 8451 1587

Available in Philippines? yes



Price	**Date:**
http://www.britishaircon.com/vmchk/Window-Air-Conditioning-2.8kW-9700-Btu-ECO933W.html £499.00 (inc 20 % vat)	04.08.2011

http://www.carltonsales.co.uk/viewproductdetail.asp?pid=6401

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

'A' Energy Rating; all in one design
Low Power Start up; Quiet Design
Memory Function; Rapid Cooling and Heating
Wireless Remote Control; LED Display
CE Marking To UK & EU Standards; R410A Refrigerant

Useful technical details (kW…)

Power supply Ph-V-Hz 1,220-240V~,50Hz
Cooling Capacity kW 2.8
Input Power kW 0.9; EER w/w 3.2
Heating Capacity kW 2.6
Input Power kW 0.8; COP w/w 3.2
Indoor noise level (Hi/Mi/Lo) dB(A) 49/47/45
Outdoor noise level (Hi/Mi/Lo) dB(A) 59/57/55
Unit Dimensions (W*H*D) mm 618*375*560
Package Dimension (W*H*D) mm 684*420*618
Net/Gross weight Kg 43/47
Airflow Cooling m3/h 500; Heating m3/h 500
Refrigerant Charge (R410A) Kg 0.78
Loading Quantity 20/40'/40'HQ 135/285/342
Dehumidification Litres/h 0.8
Energy Rating (Cooling / Heating) A/C; Fuse Rating A 13
Ambient Temperature (Heating) 0C -7 / 24
Ambient Temperature (Cooling) 0C 18 / 45

Energy-saving potential

Environmental label obtained

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COOLING – FANS

High Volume Low Speed Fan (HVLS)

Product name: Power Foil, AirGo , Element, ISIS, Pivot, YellowJacket

Manufacturer's/company's name: BIG ASS FANS

Address: 800 Winchester Road, Lexington, KY 40505

URL: www.philgeogreen.com
Email: contact@philgeogreen.com

Phone / fax: (02) 332-2657 and (02) 928-6627

Available in Philippines?
"Yes" with Philippine Geogreen Inc.

Price varies depending on size and model

Date:

www.bigassfans.com

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)
Big Ass Fans are designed to move a maximum amount of air, moving at a low speed which means less energy consumption. Increased thermal Comfort, highest quality engineered HVLS fan.

Useful technical details (kW…)
The smallest fan only uses about 250w (almost the same consumption as a light bulb), but the performance is equivalent to 10 stand fans.

Energy-saving potential
Thanks to a steady, gentle breeze, Big Ass Fans "cools" by increasing evaporative cooling, or, the rate at which perspiration is evaporated from the skin's surface. In some cases, our fans make the surrounding area feel between 8 – 16oF cooler!

Environmental label obtained

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Roof Ventilator

Product name: Green-Vent Solar

Manufacturer's/company's name: SG Eco Industries Inc.

Address: 15A Philexcel Business Park, M Roxas Hwy, Clark Freeport Zone, Pampanga, Philippines.

URL: www.green-vent.com

Phone: + 63 45 4991037

Available in Philippines? Yes.

Price: Php12,000.00 **Date:** 09/19/11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Green Vent Solar fits to your roof and is designed to extract hot/stale air from the attic space. It is easily installed in around 30 minutes. The 12v electric motor & fan assembly runs on free electricity generated by Solar energy and the photovoltaic cells.

Useful technical details (kW…) Green Vent Solar use's "Zero" mains electricity.

Energy-saving potential:

Temperatures inside your roof/attic space can exceed 70˚C (170˚F). This increases the load on any Air Con ducting and Insulation, meaning the air con has to work much harder to deliver the same result – which equates to extra energy costs. Green Vent Solar uses no mains power itself and reduces the roof/attic space temperature – thus reducing costs.

Environmental label obtained
Nil

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Attic Fan

Product name: SOLARSTAR SOLAR ATTIC FAN

Manufacturer's/company's name: SOLATUBEINTERNATIONAL

Address: 2210 Oak Ridge Way, Vista, California 92081

URL: www.solatube.com

Phone: (02)928 6627 and (02)332 2657

Available in Philippines? "Yes" with Philippine Geogreen

Price: Varies

Date:

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Solarstar is powered by the sun, with a 10watt solar panel, placed into the highest point of the roof to draw the hot air and moisture out of the attic and discharged outside. Therefore aside from reducing heat on your attic space, it also reduce damaging condensation, protects insulation from moisture saturation, fights molds and fungal decay.

Useful technical details (kW…)

Solarstar Attic Fan – has 10watt, direct drive motor solar panel that can cover 110sqm roof area. By placing the unit where it is most effective, the highest point on the roof, it can properly circulate air and ventilate your attic space, transforming your home into a comfortable living environment. Powered by Solar Star's proprietary 10-watt solar panel, this breakthrough product has been designed to last season after season.

Energy-saving potential:

Solar attic fan: Ventilating or discharge heat from the attic space without electric consumption.

Environmental label obtained

Solatube is Energy Star accredited.

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LIGHTING

Biogas Lamp

Product name:
BOSHIMA Biogas Lamp

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP 500 **Date:** 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Biogas Lamp is an equipment to convert biogas energy to light. It is just like a conventional Petromax or Coleman lamp but utilizes biogas (a renewable energy source) as fuel. No more problem w/ brownouts.

Useful technical details (kW…)

- Default pressure is from 800Pa – 2400Pa
- Light lux is from 35-60lux
- Efficacy: 0.08 lux/watt – 0.13 lux/watt
- CO emission: 0.05%

Energy-saving potential

Light illumination equivalent to a 100watts light bulb

Environmental label obtained

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10 Inch Solar Tube

Product name: 10" Solar Light Tube Item #

Manufacturer's/company's name: esolar zone

Address :

URL:http://www.esolarzone.com/10-inch-solar-tube.html

Phone / fax: 1-800-691-9127

Available in Philippines? yes

Price esolar zone: $229.99

Date:5.8.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- 10''pitched flashing
- Prismatic domed diffuser
- No elbow
- No installer needed
- Equivalent up to 300w
- Max tube length 18 feet

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Natural Lighting System

Product name: Sky Tunnel

Manufacturer's/company's name: SG Eco Industries Inc.

Address:15A Philexcel Business Park, Clark Freeport Zone, Pampanga, Philippines.

URL:www.skytunnel.com

Phone / fax: + 63 45 4991037

Available in Philippines? yes

Price Php 7,000.00 for a small unit.

Date 9.15..2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The Sky Tunnel captures the free natural light available from the sun and reflects the light down a highly reflective tube to the ceiling where it pass through a diffuser to spread the light out evenly through the room below.

Useful technical details (kW…)

Sky Tunnel does not require any electricity to operate.

Energy-saving potential

A large Sky Tunnel can save up to 560kwh per year.

Environmental label obtained

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Tubular Daylighting Device

Product name: SOLATUBE DAYLIGHTING SYSTEM

Manufacturer's/company's name: SOLATUBE INTERNATIONAL

Address :2210 Oak Ridge Way, Vista, California 92081

URL: www.philgeogreen.com
Email: contact@philgeogreen.com

Phone / fax:(02)9286627 or (02)3322657

Available in Philippines? "Yes" with Philippine Geogreen Inc.

Price : varies depending on size of room and length of tube	**Date:**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Solatube Daylighting System – is a 100% green technology which designed to provide superior natural day lighting performance with UV inhibitor. The dome collects the sunlight from sunrise to sunset while rejecting heat and UV rays, then redirected down the tube. The patented Spectralight Infinity tubing has 99.7% solar reflectance and moves light down and through the diffuser. The diffuser then distributes the natural lighting evenly throughout the space without the heat.

Useful technical details (kW…)

Solatube Daylighting – The Solatube Daylighting System captures light through a dome on the roof and channels it down through our internal reflective system. This tubing is far more efficient than a traditional drywall skylight shaft, which can lose over half of the potential light. The tubing will fit between rafters and will install easily with no structural modification. At the ceiling level, a diffuser that resembles a recessed light fixture spreads the light evenly throughout the room.

Energy-saving potential

Solatube: Eliminating or reducing electric light consumption during the daytime will help facilities reduce their non-renewable energy use and LOWER THEIR CARBON FOOTPRINT

Environmental label obtained

Solatube is Energy Star accredited.

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Solar Tube 1

Product name: Solar Tube Skylight Kit 10"

Manufacturer's/company's name: solarpanel

Address :

URL:http://www.solarpanelsonline.org/Solar_Tube_Skylight_Kit_10_p/solartube10.htm

Phone / fax:

Price solarpanelsonline: $209.99 **Date:**5.8.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Closed tube system, no heat loss or gain.
- Fits between rafters and joists, no costly framing, drywall or painting.
- Seamless, round roof jack for waterproof installation.
- Modified high impact acrylic dome and diffuser for best clarity and durability.
- Low arc diffuser for best illumination without spotlighting.
- Dome ring prevents trapping condensation.
- Installs on any roof in under 2 hours.
- 25 year product warranty.
- Tested and approved by ICBO and Flordia Building Code.

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Solar Tube 2

Product name: 343mm Sky Tunnel, Tile roof flashing with 1m Rigid pipe

Manufacturer's/company's name: solar sky tunnel

Address : Unit 9, Sola House, Dabble Duck Industrial Estate
Shildon, County Durham, DL4 2RF
United Kingdom

URL: http://www.solaskylights.com/sky_tunnel_rigid_tube.html

Phone / fax: 080 0389 7361

Available in Philippines?

Price solar skylights: £275.00 **Date:5.8.2011**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- 98% reflectance
- 20 year life
- Includes roof dome, breather frame, roof flashing, upper rigit section, adjustable elbow, rigit pipe, lower rigit section, celling frame, double glaze diffuser

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Sun Tunnel 3

Product name: 10" Rigid Low Profile Acrylic Dome SunTunnel

Manufacturer's/company's name: velux

Address :

URL:http://www.5starskylights.com/residential-skylights/sun-tunnels/model-tgr/10-rigid-low-profile-suntunnel.html

Phone / fax: (866) 318-4689.

Available in Philippines? yes

Price skylights: $213.00

Date:5.8.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- 10" diameter
- Includes dome, shingle/shake roof flashing, 4' tunnel, two adjustable elbows, ceiling ring and diffuser

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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Solar Powered Off-Grid Light

Product name: Solar Powered Off-Grid Light

Manufacturer's/company's name: Pharos Off Grid Technologies

Address : Manila

email: roshan@pharosoffgrid.com

Phone:0927 9839927

Available in Philippines? (If not obvious, "to be checked")
Yes from Pharos Off-Grid Technologies, Manila

Price: PhP 999

Date: October 2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Pharos was created in order to formulate the most effective and most versatile technology for survival. Pharos, as many would recognize it, was a famous structure in Alexandria that is now synonymous with the lighthouse. Its mere presence allows a multitude of human endeavors that would not be possible without its existence. This is the importance of light. Pharos' first product is the Great White Light; Its agility and ability to acclimatize to the specific need of its user is unmatched. Moreover, since it is powered by solar energy, light will always be available.

Light Modes & Hours of Light you get from 1 day's charging (with full sunlight)
Low - 50 Hours, Mid - 8.5 Hours, High - 4.5 Hours

Useful technical details (kW…)
Product Specifications:
- 3.7 V 950 mAh Lithium-Ion Battery
- 4.7 V 700 mW Solar Panel with 5 meter cord
- Twelve 5mm Bright White LEDs
- Charge Indicator LED
- Charge Controller: Over-Charge/Deep-Discharge Protection
- Durable Plastic Casing for Maximum Protection

Energy-saving potential

Environmental label obtained

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Sensor Switch

Meiji Infrared Motion Sensor		
Manufacturer's/company's name: Meiji		
Address: Manila		
URL:		
Phone / fax:		
Available in Philippines? Yes at ACE Hardware stores		
Price PhP 500	**Date:** June 2011	

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Automatically open when there is an occupant in the room. With built-in photocell that assures operation only when it's dark.

Useful technical details (kW…)

- 360 degrees detection angle
- up to 300W CFL load
- 6m detection distance
- Time delay from 10sec to 7minutes
- Installation height from 2m to 4m

Energy-saving potential

Environmental label obtained

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Wall Switch Timer

Product name: Automatic Switches with 2-5-10-15 Minute Timers

Manufacturer's/company's name: Leviton

Address :

URL: http://www.greenandmore.com/leviton-light-timers.html?navContext=undefined&itemId=614

Phone / fax: 1 877 473 3616

Available in Philippines?

Price green and more: $37.99 **Date:** 5.8.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Four buttons to select 2-5-10 or 15 minutes of "on" time
- Red LED indicates time remaining until power shuts off
- Ideal household use; exhaust fans, bathroom fans, hot tubs, etc.
- Time alarm and light display
- Automatic turn-off

Useful technical details (kW…)
1000W Incandescent and 20A - 120VAC, 60 Hz Inductive

Energy-saving potential

Environmental label obtained

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LED Lights

Product name: G-Lite Bulb Series

Manufacturer's/company's name: Greenworld LED Solutions

Address: Manila: 47-A G. Araneta Ave. QC
Cebu: Jakosalemcor P. Del Rosario Sts. Cebu City

URL: www.greenworld.com.ph

Phone / fax: (02)2177897/(02)7144101

Available in Philippines?

Price6W-800 8.8W – 1,250	Date: Nov. 2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

This is the direct replacement for the 24W and 18W CFL.

Useful technical details (kW…)

6W replaces the 18W CFL and the 8.8W replaces the 24W CFL

Energy-saving potential

Around 50%

Environmental label obtained

ROHS

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REFRIGERATORS AND FREEZERS – for Kitchen

Fridge Kitchen 1

Product name: Summit CP171 11 CuFt Bottom-Freezer Refrigerator

Manufacturer's/company's name: Vestfrost Household

Address : SpangsbjergMøllevej 100, DK-6705 Esbjerg Ø

URL: http://www.vestfrost.dk

Phone / fax: +45 7610 4045/ +45 7610 4045

Available in Philippines?

Price	**Date:**
http://www.bizrate.com/refrigerators/11497911.html $1,072.55 - $1,253.00	**04.08.2011**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Summit CP-171SS is a two-compressor bottom mount freezer for commercial use. Having two compressors this model allows independent control of the refrigerator and freezer, and superb cooling.

Useful technical details (kW…)
Specifications:

1) Net Capacity (refrigerator): 7.1 cu. ft.
2) Net Capacity (freezer): 3.4 cu. ft.
3) Height: 79.2"
4) Width: 23.6"
5) Depth (excluding handle): 23.4"
6) Freezing capacity (24 hours): 39.5 lbs.
7) Compressor (refrigerator): surge 14.5A; run, 1.0A
8) Compressor (freezer): surge, 16A, run, 1.5A
9) Power Consumption (24 hours): at 77°F 1.5 Kwh (~547Kwh annually)
10) Standard Voltage: 120V, 60 HZ
11) Cord Length: 6'4"
12) Freezer defrosts manually.

Energy-saving potential

Environmental label obtained

The Vestfrost Group was the first company worldwide to obtain the Community Ecolabel. A clean environment and A/S Vestfrost - two sides to the same issue. Vestfrost is the first in the industry to document compliance with all EU energy and environmental criteria. EU's green flower label symbolizes that products do not deplete the ozone layer, nor add to the greenhouse effect.

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Fridge Kitchen 2

Product name: INDESIT TA5S American Fridge Freezer

Manufacturer's/company's name: Indesit

Address : Kitchen Science
George House
George St
Hull
HU1 3AU

URL:http://www.kitchenscience.co.uk/fridges_and_freezers/american_fridge_freezers/american_fridge_freezers_fridge_on_top/indesit_ta5s.html

Phone / fax: 0844 335 6459

Available in Philippines?

Price kitchen science: £349.99

Date: 08.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Automatic fridge defrost Prevents build up of frost and water pools
- 2 half width salad crisper(s)
- Ideal for keeping vegetables fresher for longer and separates from other food stuffs, such as meat

Useful technical details (kW…)

- Height=180.0cm Depth=68.5cm Width=70.0cm
- Capacity 3.3 cu.
- 383 kWh/year energy consumption
- 5 kg/24 hrs freezing capacity
- Left or right hand opening
- Storage capacity 341 liters, fridge capacity 333 liters , freezer capacity 94 liters

Energy-saving potential
A grade energy

Environmental label obtained

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Fridge Kitchen 3

Product name: Hotpoint 55cm Freestanding Fridge Freezer - RFA52K

Manufacturer's/company's name: Hotpoint

Address : Appliances Direct
Unit 2
The Nursery
Berristow Lane
South Normanton
Derbyshire
DE55 2FX

URL:http://www.appliancesdirect.co.uk/Hotpoint_55cm_Freestanding_Fridge_Freezer_RFA52K/version.asp

Phone / fax: 01773 814 660

Available in Philippines? (If not obvious, "to be checked")

Price appliances direct: £268.97

Date: 08.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- 3 safety glass shelves
- 2 half width salad drawers
- Full width bottle balcony
- 4 freezer drawers
- Ice Care - in drawer ice trays
- Super freeze function
- Fridge net capacity: 150 Liters
- Freezer net capacity: 85 Liters
- Height: 1740mm, Width: 545mm, Depth: 580mm

Useful technical details (kW…)
annually: 307 kWh

Energy-saving potential

Energy rating: **A**

Environmental label obtained

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Fridge Kitchen 4

Product name: LG WGCB399BVCA - Frost Free Fridge Freezer White

Manufacturer's/company's name: LG

Address : The Clock Buildings
Roundhay Road
Leeds
LS8 2SH

URL: http://www.electrotown.co.uk/buy/LG-Frost-Free-Fridge-Freezer-White-WGCB399BVCA

Phone / fax: 0844 474 2000

Available in Philippines? (If not obvious, "to be checked")

Price electrotown:£396.99	**Date:** 08.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Fridge Capacity 218 Liters
- Frost Free Freezer
- Fridge Capacity 217Liters, Freezer Capacity 104 Liters
- 4 Shelves (Fridge)
- 3 Compartments (Freezer)
- Safety Glass Shelves
- Dairy Compartment
- Super Fast Freezing
- Freezer Star Rating 4
- Ice Cube Tray
- Interior Light
- Reversible Door
- LED Temperature Controls
- Power Failure Safe Storage 12 Hours
- Dimensions mm :1896 x 595 x 651 (H x W x D)

Useful technical details (kW…)

- Annual Energy Consumption 369 kWh

Energy-saving potential

Energy A Rated

Environmental label obtained

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Freezer 1

Product name: Sharp freezer FRV200

Manufacturer's/company's name: Sharp Philippines

Address : Km. 23 West Service Road South Super Hi-way Alabang, Muntinlupa City, Philippines

URL:http://www.sharp.ph/

Phone / fax: (63) (02) 842-1371/ Fax. No.: 842-0530

Available in Philippines? (If not obvious, "to be checked")yes

Price	**Date:**
http://atlanta-electronics.com/index.php?option=com_k2&view=item&id=1082:sharp-frv-200&Itemid=363	05.08.2011

http://www.sharp.ph/products.php?idc=194

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Features
> Fast freezing Capacity
> Compatible functions for refrigerator and freezer(freezer-18 C, Ref. 0-10 C)
> Artistic handle and door
> Key Lock
> Rust proof cabinet
> Roller caster

Useful technical details (kW…)

Wire Shelf 1
Cooling System Direct Cooling System
Refrigerant (Non CFC) R - 134a
Defrost System Manual
Key Yes
Capacity :
* Freeze ring 15 Kg / 24 H
* Total Volume 195 Liter
Power :
* Source 220 - 240 V / 50 Hz
* Consumption 90 Watt

Capacity	Freezing	15 Kg / 24 H
	Total Volume	195 Liter
Power	Source	220 - 240 V / 50 Hz
	Consumption	90 Watt
Dimension	Dept	625 mm
	Width	925 mm
	Height	873 mm
Net Weight		44 Kg

Energy-saving potential

Environmental label obtained

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Freezer 2

Product name: AEG A81000TNW0

Manufacturer's/company's name: AEG / HAIER

Address :
69 Sheep Street Bicester
Oxfordshire. OX26 6JW
ENGLAND

URL: http://www.ogormans.co.uk/aeg_freezers.htm

Phone / fax: (01865) 372117

Available in Philippines?

Price O'Gorman's direct: **£369**

Date: 05.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- 100 liters 3.53 cu.ft (gross) 4 star Freezer
- 4 Freezer Drawers
- Fast Freeze 9kg in 24 hours
- Electronic Temperature Control
- Door Open Indicator
- Temperature rising time 13 hours
- Height 850mm Width 600mm Depth 626mm
- Climate Class SN-N-ST-T (10 - 42^0C)

Useful technical details (kW…)

197kWh/year

Energy-saving potential

(A+) Energy RatingFROST FREE
(A+) Energy Rating Uses 20% less Energy than (A) rating

Environmental label obtained

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Low Energy Freezer

Product name: 138 Liter Solar Energy Freezer / 12V Solar Freezer / Low Energy Freezer

Manufacturer's/company's name: Newsky

Address :
B8-2, 3rd Floor, Section 1, No. 34, Shanghai Road, Free Trade Zone, Qingdao, Shandong, China (Mainland)

URL: http://www.alibaba.com/product-gs/454826403/138_Litre_Solar_Energy_Freezer_12V.html

Phone / fax:

Available in Philippines?

Price	**Date:** 05.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Power Source: Solar
- Place of Origin: Shandong China (Mainland)
- Model Number: BR138C4
- No AC Inverter needed
- Input voltage automatic recognition
- Environmentally friendly CFC-free refrigerant (R-134a)
- High temperature resistance and energy saving design
- Door lock
- Baskets for food organization
- Low power consumption makes best use of available power
- Automatically low voltage cut out to protect batteries
- Using AC power through AC/DC adaptor
- Max -18°C (-0.4°F) for freezer compartment at 30°C (86°F) ambient temperature

Useful technical details (kW…)

72W, 12V, Capacity 138L

Energy-saving potential

Environmental label obtained

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REFRIGERATORS AND FREEZERS – for Guest Rooms

Mini Fridge 1

Product name: Mini Fridge (Cooler & Warmer)Portable essential

Manufacturer's/company's name: paramount zone

Address : Paramount Zone Ltd
Trident House
89 Bickersteth Rd
London
SW17 9SH

URL: http://www.paramountzone.com/fridge2.htm

Phone / fax: 0844 873 3220

Available in Philippines?

Price paramount zone**:**£59.99	**Date:** 05.08.2011

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

- Perfect for your home, office, car, caravan, boat, bedroom
- Outer fridge size: 43(h) x 26(w) x 32(d) cm
- Non-polluting 'Peltier' electronic cooling system
- Easy-clean stain resistant materials
- Odour resistant full CFC free polyurethane-foam liner
- Easy-carry swing-up handle on top of mini fridge (Integrated carrying handle)
- Removable food tray for extra storage
- Simple to use
- Switches: Hot/cold, on/off. Red/green leds indicate warming or cooling
- Fridge can store a 2-liter bottle upright (unlike most other mini fridges)
- Cold effect: Cooling 20 degrees F (approx 3 degrees C) below ambient temperature
- In warmer summer conditions the cooling effect can be to around 8 degrees C
- Hot effect: Warms to 65 degree Celsius
- Gasket in mini fridge lid provides air tight seal

Useful technical details (kW…)

- Power options: 220-240V mains or 12V car battery (both adaptors included)
- 15 Liter Capacity
- 48 Watts power consumption
- Durable brushless long lasting motor lasts up to 30,000 hours

Energy-saving potential
mini fridges for guest rooms, models without freezer (without compressors) is advisable as ice makers may be available in the main kitchen and ice may be requested to be brought to the room - GBT

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Miscellaneous Green Products

Terry Towels	
Product name: EcoKnit™Towels	
Manufacturer's/company's name: Hartdean Ltd	
Address: 2F Airrich Bldg. Km. 19.5 East Service Road Sucat, Parañaque City	
URL: http://www.hotelandspaessentials.com/hotel-supplies/ecoknit-towels/	
Phone / fax: 02 - 8382167 02 - 8382195	
Available in Philippines? Yes	
For pricing, please contact jenette@hotelandspaessentials.com	

Useful technical details (kW…)

EcoKnit™ Towels are Snag Free and are virtually indestructible
The loops cannot come loose and the towel cannot fall to pieces like a woven towel. No more tearing of hems and fraying of selvedges in the laundering process. No more wastage and throwing away your money.

Energy-saving potential

EcoKnit™ Towels have an open base construction - This allows water to be expelled more effectively.

Lower emissions - This means reduced carbon footprint and more Eco friendly than any other terry towel on the market today.

EcoKnit™ Towels have exceptional colorfastness even at 95°C

EcoKnit™ Towels have been proved to save up to 41% in energy consumption over standard towels.

Environmental labels obtained

Eco Carbon Friendly Energy Efficient Product

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Biodegradable Hotel Amenities

Product name: Eco Fresh & Kudos Spa Hotel Amenities

Manufacturer's/company's name: Concept Amenities

Address: 2F Airrich Bldg. Km. 19.5 East Service Road Sucat, Parañaque City

URL: www.hotelandspaessentials.com

Phone / fax: 02 - 8382167 02 - 8382195

Available in Philippines? Yes

For pricing, please contact jenette@hotelandspaessentials.com

Useful technical details (kW…)

ERP is an authentic and evidence based environmental approach to product development that is providing leadership for clients and addresses core environmental concerns.

We show a respect to our natural environment and aspire to minimize any detrimental impact our products make throughout their product life cycle to the natural systems on which we depend. ERP offers biodegradable and recyclable packaging options.

- ERP plastic packaging contains a safe, non-toxic, organic based additive.
- This changes the molecular structure of plastic once the material is discarded in landfill.
- Biodegradation can occur in both aerobic and anaerobic conditions, so industrial composting is not required.
- Biodegradable packaging has been tested and meets global standards for anaerobic biodegradability.
- ERP products that currently meet recycling standards can still be recycled using local recycling facilities.
- We also use post-consumer recycled materials in our ERP amenities

What is EcoPure®?

- EcoPure® is an additive that accelerates the biodegradation process in plastic products when in the presence of microorganisms found in landfill environments
- EcoPure®- treated plastics leave behind only natural elements like water, biomass (nutrient-rich soil called humus) and biogases.

Energy-saving potential

Environmental labels obtained

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Rain Harvesting

Product name: Downpipe First Flush Water Diverter, Rain Heads and other water tank accessories

company's name: Emerald Vinyl Corporation

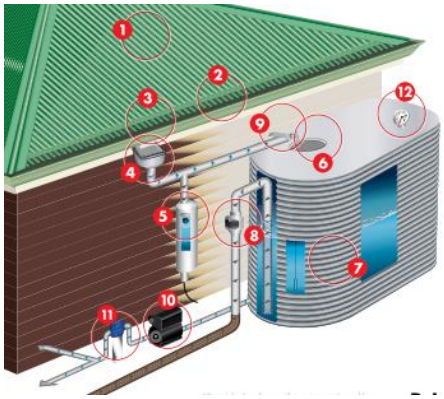
Address :20 Oliveros Drive Balintawak, Quezon City

URL:

Phone / fax: (632) 361-6101

Available in Philippines? Yes

Price	**Date:**



Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Rain Harvesting products is a simple way to filter and collect rain water from the roof.
Rainwater harvesting:
-Reduces reliance on centralized water system
-Is more efficient than relying on municipal dam and catchment supply
-Uses less water infrastructure which reduces carbon emissions
-Collects high quality of water that would otherwise be lost
-Saves money on water bills

Pre-filtration devices are critical to the Rain Harvesting process and should be installed at each downpipe that supplies rainwater to the tank. These devices improve water quality, protect pumps and household appliances, and reduce tank maintenance by keeping leaves, debris and other pollutants out of the rainwater tank.

First Flush water diverters improve water quality, reduce tank maintenance and protect pumps by preventing the first flush of water, which may contain contaminants from the roof, from entering the tank.

The ranges of rain heads feature multiple screens to deflect leaves and debris away from the flow of water and keep mosquitoes and vermin out of the pipe system, making them practically self-cleaning.

Whether you wish to collect more rain water, improve water quality or minimize maintenance, Rain harvesting tank accessories ensure the optimum performance of your rainwater tank.

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

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NUBIAN Grey water treatment and recycling

Product name: NUBIAN

Manufacturer's/company's name: Emerald Vinyl Corporation

Address :20 Oliveros Drive Balintawak, Quezon City

URL:

Phone / fax: (632)361-6101

Available in Philippines? Yes available but by order basis.

Price:	**Date:**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability)

The Nubian system treats the greywater collected and treated water is clean non potable water which can be re used for non-potable water usage.

Nubian Water Systems has developed a range of leading urban water solutions applicable to residential, commercial and industrial properties. Borne out of the need for intelligent and effective water management practices, Nubian Water Systems provides both standard products and tailored packages to meet individual needs. Nubian Water Systems aims to instigate the paradigm shift necessary torescue Australia from the current water crisis and lead the field in providing effective local level water management systems and solutions.

The Nubian GT600 has been designed for onsite greywater recycling in sewered and unsewered areas. It treats water from baths, showers and hand basins for safe reuse in toilets, urinals and washing machines, and for irrigation and other external applications. The Nubian GT600 comprises of a feedwater tank, processing system, incorporating a proprietary treatment column coupled with U.V.disinfection and a treated water storage tank.

The combined treatment processes achieve a very high degree of organic, nutrient and pathogen removal. In the treatment column, straining, impaction and interception on the media cause the media to retain a high portion of organic matter and pathogens. Further retention of particulate organics, and dissolved organics and nutrients is achieved by adsorption. Retained contaminants are discharged to sewer during the automatic backwash cycle.
The final stage of disinfection achieves a high kill rate of pathogenic organisms.

Useful technical details (kW…)

Energy-saving potential

Environmental label obtained

Australian Water Association, Building Sustainability Index (BASIX), Green building council Australia member, Energy Smart Allies

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BUSSE Sewage treatment system

Product name: BUSSE

Manufacturer's/company's name: Emerald Vinyl Corporation

Address :20 Oliveros Drive Balintawak, Quezon City

URL:

Phone / fax: (632)361-6101

Available in Philippines? Yes but by order basis

Price : **Date:**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The BUSSE sewage treatment system treats sewage waste and process and the final outcome is clean non potable water.

The Domestic Sewage Treatment System uses microfiltration, currently the most advanced method of local waste water treatment. Microfiltration eliminates even bacteria and germs. This restores waste water to hygienic condition fit for use as service water, for example, to water the garden or flushing the WC. In this way the consumption of drinking water in a household can be reduced by about one third.

The Small Size Sewage Treatment System is designed on the basis of German regulation "DIN 4261" part 2 and comprises two treatment steps, namely pre-treatment aeration and At the pretreatment step, which also serves as waste water store, biologically degradable coarse material such as, feces, toilet paper, is dissolved and the non-dissolving components separated from the waste water by an aerated sieve. A pump pumps the waste water, from which the coarse material has been separated, to the aeration section. At this step the organic matter in the waste water is degraded biologically by microorganisms and oxygen. In addition to this, the waste water is treated physically by microfiltration membranes (ultrafine filter with 0.4 µm pore size). These membrane filters eliminate suspended material, even bacteria and germs, ensuring that only absolutely clear, odourless, hygienically harmless water (permeate) leaves the system.

The system was tested successfully by the University of Hannover and the Technical University in Berlin and the water from the system in practical service is significantly better than the limits set by DIBt Berlin* (Z-55.3-60) and the applicable law. Due to the immersed microfiltration membranes, in combination with a technologically required high concentration of biomass, the COD level in the discharged water can be reduced to under 30 mg/l* and the BOD Filtrate collector Aerator Riser duct Filtrate Membrane value to under 5 mg/l.

Useful technical details (kW…)

Energy-saving potential

Reduction of the consumption of drinking water in the household by up to one third due to the use of the treated waste water as service water (e. g., for watering the garden or flushing the toilet)

Environmental label obtained

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Water Saving Shower Head

Product name: Oxygenics

Manufacturer's/company's name:
Panmanhattan Marketing Corp.

Address: San Miguel Comp., Amante St., Brgy Landayan, San Pedro Laguna

URL: http://mgs.jw-world.com/

Phone / fax: 808 0168 / 808 6789

Available in Philippines? Yes with Panmanhattan Marketing Corp.

Price Php 4,300	**Date: Jan. 2011**

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Saves up to 70% in water and heating cost by using oxygen to create pressure. Purely mechanical and easy to install. Self-Pressurizing, lifetime performance warranty uses 1 gallon per minute instead of 4.5 gallons per minute. Zero Maintenance

Useful technical details (kW…)

1 to 1.5 gpm water consumption, can withstand pressures of up to 120 PSI

Energy-saving potential

Uses up to 70% less water, uses up to 70% less hot water

Environmental label obtained

Water sense USA and can be used to get LEED, BREEAM, and BERDE points

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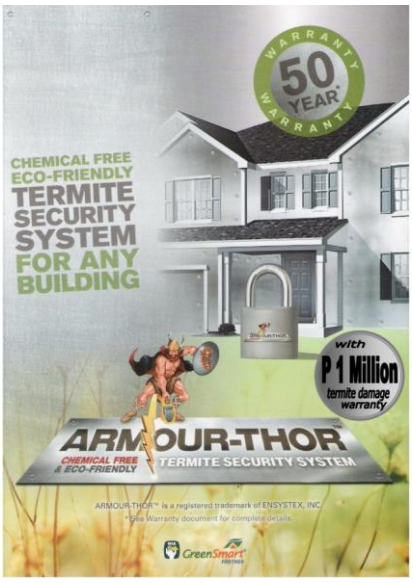
Termite Physical Barrier Sytem



Product name:
ARMOUR-THOR TERMITE SECURITY SYSTEM

Distributor:
GREEN BUILT ENTERPRISE / HAPPY HOME PEST CONTROL

Address:

- Km 103 Mac Arthur Highway, Bamban, Tarlac
- R2 & R4 Pasilio Rosal, Nepo Mart II, Angeles City

URL: www.happyhomepestcontrol.com
www.armour-thor.com

Phone : 09228394663; 0922 821 4663; 045 887 2649

Available in Philippines? Yes

For pricing, please contact
Francis R. Eugenio **(**0922 821 4663)

Useful technical details (kW…)

This is a permanent chemical-free physical termite-proofing system which is installed during construction for homes and buildings to address the persistent threat of termites.

The system uses termite-proof ultra marine grade aluminum sheets and collars, termite-proof gel and termite-proof parge to block off all possible termite entry points such as walls, construction joints, electrical conduits, all other service penetrations and all hairline gaps which termites explore to gain entry into structures.

The ARMOUR-THOR® System is a replacement for soil poisoning procedures traditionally done during construction. Soil poisoning is just a temporary measure in addressing termites and is non-sustainable. Armour-Thor®, on the other hand has all the advantages - it works in keeping termites out, it is permanent, it is chemical-free, it comes with a 50 year warranty, it is sustainable and it is a certified green product. To top it all up, it comes with a 1 Million Termite Damage Warranty (conditions apply) for the said 50-year period.

In Australia and Singapore, there have been over 80,000 successful installations including landmark structures such as the Sydney Airport, Changi Singapore Airport Terminal, The Sail, St. Regis Hotel, etc.

If you are building a new home, apartment, building, condominium, hotel, mall or any structure you wish to permanently protect from termites, let us help you put this sound and sustainable physical termite barrier system in place.

Energy-saving potential

- ✓ Savings on Water Usage - Minimal water is used during installation unlike when soil poisoning is done to address termites during construction wherein voluminous amounts of water are used.
- ✓ Savings on Manpower - Armour-Thor® is maintenance-free thus saving on manpower.

Environmental labels obtained

Green Smart Partner / Codemark Certified

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Termite Baiting System

Product name:

EXTERRA® TERMITE INTERCEPTION AND BAITING SYSTEM

Distributor:

GREEN BUILT ENTERPRISE / HAPPY HOME PEST CONTROL

Address:

- Km 103 Mac Arthur Highway, Bamban, Tarlac
- R2 & R4 PasilioRosal, Nepo Mart II, Angeles City

URL:

www.happyhomepestcontrol.com
www.exterra.com.au

Phone :

09228394663; 0922 821 4663; 045 887 2649

Available in Philippines? Yes

For pricing, please contact

Francis R. Eugenio **(**0922 821 4663)

Useful technical details (kW…)

A green/eco-friendly termite baiting system which is guaranteed to eliminate all termite colonies intercepted.

This is how the Exterra® System works:

a. Termite Baiting Stations with timber interceptors and Focus® Termite Attractant are installed around the structure/s approximately 5 meters apart.
b. Baiting Stations are monitored monthly.
c. Baiting Stations with positive termite activity are baited with Requiem® Termite Bait which is non-toxic to humans, pets, and the environment.
d. The termite bait is eaten by worker termites and is fed to the other members of the termite colony --- the soldiers, queen, king and nymphs. Replenishment of bait is done if and when needed.
e. In the process, the entire colony dies.
f. The baiting stations remain in place to protect the structure/s from future termite attacks.

Energy-saving potential

✓ Savings on Water - No voluminous amount of water is needed.

Environmental labels obtained

Green Smart Partner / Codemark Certified

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Green Pest Management with G.O. Enzyme Cleaning Products

Product name:
GREEN PEST MANAGEMENT with G.O. ENZYME CLEANING PRODUCTS

Company Name:
GREEN BUILT ENTERPRISE / HAPPY HOME PEST CONTROL

Address:
- Km 103 Mac Arthur Highway, Bamban, Tarlac
- R2 & R4 PasilioRosal, Nepo Mart II, Angeles City

URL:
www.happyhomepestcontrol.com

Phone :
09228394663; 0922 821 4663; 045 887 2649

Available in Philippines? Yes

For pricing, please contact
Francis R. Eugenio **(**0922 821 4663)

GREEN PEST MANAGEMENT

Pioneering Pest Management Service towards a chemical-free / pesticide-free environment

Useful technical details (kW…)

A pioneering pest management service using an array of chemical-free and pesticide-free products/materials which effectively addresses general pests. We will train you to become self-reliant in controlling pests and at the same time achieve a cleaner environment.

Energy-saving potential

- ✓ Savings on Manpower - While doing pest control --- cleaning and disinfecting is achieved in the process.
- ✓ There are no chemical fumes and no pesticide fumes which cause chronic fatigue syndrome, dizziness, lethargy and other potential ill effects of chemicals and pesticides. Manpower is saved from such ill-effects therefore achieving healthier disposition and upbeat performance therefore achieving better wellbeing and higher productivity.

Environmental labels obtained

Products used to address pests are mostly Green Choice Philippines certified.

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G.O. Enzyme Cleaning Products

(Green/Organic Enzyme Cleaning Products)

Product name:

- All-In-One Plant Extract Concentrate
- Green Organic Ultimate Solution
- Green Organic Detergent Powder
- Green Organic Fabric Conditioner
- MagicZyme
- Biozyme
- Green Organic Dishwashing Liquid
- Green Organic Liquid Handsoap

Company Name:

GREEN BUILT ENTERPRISE / HAPPY HOME PEST CONTROL

Address:

- Km 103 Mac Arthur Highway, Bamban, Tarlac
- R2 & R4 PasilioRosal, Nepo Mart II, Angeles City

URL: www.happyhomepestcontrol.com

Phone :

09228394663; 0922 821 4663; 045 887 2649

Available in Philippines? Yes

For pricing, please contact

Maria Agnes Yap Marcon **(**0922 839 4663)

Going green... going organic for health safety and environmental sustainability.

Useful Technical Details

A range of green/organic, plant-based enzyme cleaners exhibiting powerful bactericidal, fungicidal, virucidal and insecticidal action for general/multipurpose cleaning, dishwashing, laundry, odor elimination, disinfecting, degreasing, decomposing, pest control, drainage system maintenance, septic tank and wastewater treatment, garbage treatment, etc.

Ideal for hotels, resorts, restaurants, shopping malls, manufacturing and industrial plants, food processing plants, schools, hospitals, wastewater treatment facilities, slaughterhouse, wet market, feedlots, animal farms, or any area in need of cleaning, disinfecting and eradication of odor.

Energy/ Money Saving Potential

- Savings on Manpower - The use of green/organic enzyme cleaners fulfill multiple needs – cleaning, disinfecting, odor-elimination, pest control, etc. in one application. Time and energy of manpower is saved. Also, there is no need to use harmful chemicals/pesticides which affect health and wellbeing, therefore achieving better manpower performance.
- Savings on Water - Less water is needed during cleaning.
- Savings on Electricity - During laundry, less electricity is needed to achieve quality cleaning, disinfecting and deodorizing when allowing the enzymes present in the detergent to work.
- Savings on money - Products are cost-effective. Fewer amounts of the products are needed to achieve excellent results. Less products are needed to achieve all cleaning, disinfecting, deodorizing, decomposing, degreasing, pest control, etc. Money is saved.
- Savings on Management Energy – Stress-free/Worry-free maintenance of facilities. Excellent cleaning, disinfecting, odor elimination, maintenance of drainage system, septic tank, sludge and wastewater facility is achieved. There are no pollutants. Gives management--- peace of mind.

Environmental Labels Obtained

Green Choice Philippines Certified / Best Eco-Industrial Product

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Biogas Desulfator

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP 175 | Date: 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Raw biogas from the digester contains certain percentage of H2S. H2S is poisonous to human beings. It produces bad odor as well as can cause corrosion to biogas equipment/appliances.

Useful technical details (kW…)

- The device can remove 85% H2S & can be used for 2-3yrs.
- The Desulfator uses the reaction equations:
  Absorption: $Fe_2O_3.H_2O + 3H_2S = Fe_2S_3.H_2O + 3H_2O$
  Recovery: $2FeS_3.H_2O + 3O_2 = 2Fe_2O_3.H_2O + 6S$

Energy-saving potential

Environmental label obtained

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Gas & Water Separator

Product name: Gas & Water Separator

Manufacturer's/company's name:
Laguna Agbiotech Corporation

Address: #58 Lawa National Road, Calamba City, Laguna

URL: http://boshimaco.com/home

Phone / fax: (049) 502-9198

Available in Philippines? Yes

Price PhP75

Date: 12-11-11

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Raw biogas from the digester contains certain percentage of H2O. Gas & water separator minimizes the amount of water in the biogas stream.

Useful technical details (kW…)

H2O is heavier than gas so it settles at the bottom of the separator for easy removal.

Energy-saving potential

Environmental label obtained

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Solar Water Heater

Product name: EMPIRE SUN

Manufacturer's/company's name: EDWARD MARCS PHIL INC.

Address :2/F Timog Bldg, Eugenio Lopez St, South Triangle, QC

URL: www.edwardmarcsphilinc.com

Phone / fax: (MLA)02-9221371, 922-1657; (CEBU)032-2381972; (DVO)082-2962907

Available in Philippines? Yes

Price Php 35,000 – Php 135,000

Date:23.04.2012

Product picture

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Empire Sun SWH uses vacuum tube heat pipe solar collector which is three times more efficient than flat plate solar collector. It comes in four models: non-pressure series, compact pressure series, heat exchanger type and split type system.

Useful technical details (kW…)

Available in 200li and 300li tank but can be expanded by series connection. Each solar water heater is equipped with 1.5kw backup electric heater for cloudy days and in times of increase in hot water demand.

Energy-saving potential

With proper sizing, the client can fully enjoy free hot water from the sun.

Environmental label obtained

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Solar-Assisted Aircon

Product name: SEDNA AIRE

Manufacturer's/company's name: EDWARD MARCS PHIL INC.

Address : 2/F Timog Bldg, Eugenio Lopez St, South Triangle, QC

URL:www.edwardmarcsphilinc.com

Phone / fax: (MLA)02-9221371, 922-1657; (CEBU)032-2381972; (DVO)082-2962907

Available in Philippines? Yes

Price: Php 64,000 – Php 230,000 **Date:**24.04.2012

Product picture

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Sedna Aire utilizes heat-pipe solar collector in absorbing heat energy from the sun which is in turn used to displace electricity used in the cooling process. Although it still requires electricity to pump the refrigerant, the amount of power used is very minimal compared to that consumed by a compressor in a conventional electric airconditioner.

The solar-assisted air conditioning system uses three Substances: refrigerant, Solar Heat and solar medium in the Solar Panel. The cooling cycle starts at the evaporator, where liquefied refrigerant enters, this is critical for exploiting its sub-zero boiling point. As the liquefied refrigerant enters the evaporator, the liquid refrigerant picks up the heat at the beginning of the coil and starts the process of dehumidification as well as reduction in room temperature.

Sedna Aire is available in split type systems: floor standing, wall-mounted, ceiling cassette, ceiling suspended and concealed ducted, ranging from 9000btu (1hp) up to 48000btu (6hp).

Useful technical details (kW…)

The solar-assisted air conditioning system cools by evaporating liquid R410. The medium inside the solar panel acts as a storage tank to maintain the required temperatures needed for the cooling process. With the solar tank the cooling process is maintained for approximately 96 hours without the need of the sun's heat. The heat transfer medium also act as an absorbent to the refrigerant through the solar panel process. With this process the solar-assisted aircon maintains its energy required for the cooling process needed for the controlled space.

Energy-saving potential

Sedna Aire solar-assisted aircon dramatically reduces energy consumption by as much as 30-50%. It utilizes solar energy to displace electricity in the cooling process.

Environmental label obtained

Green Choice – under process

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Heat Recovery System & Heat pumps

Product name: ECOGEN

Manufacturer's/company's name: EDWARD MARCS PHIL INC.

Address : 2/F Timog Bldg, Eugenio Lopez St, South Triangle, QC

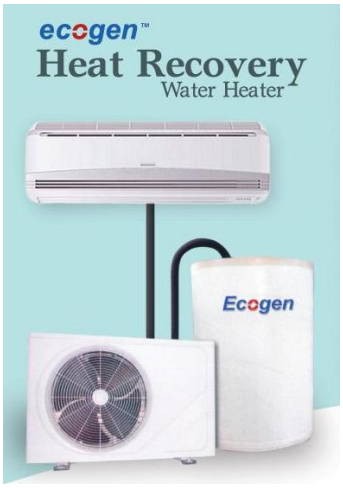
URL: www.edwardmarcsphilinc.com

Phone / fax: (MLA)02-9221371, 922-1657; (CEBU)032-2381972; (DVO)082-2962907

Available in Philippines? Yes

Price: Php 49,000 – Php 180,000

Date:23.04.12



Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

The ECOGEN Heat Recovery System can be installed anywhere where hot water needed. The heat recovery tank is linked to the compressor of a split type aircon through the refrigerant line. Following the working principle of an ordinary split type aircon, heat is absorbed from the surrounding environment by the evaporator to heat the refrigerant. Then the refrigerant evaporates and flow into the compressor where it is compressed and superheated. The superheated compressed refrigerant passes through the copper tube coiled round the heat recovery tank. The coil acts as the condenser and gives out heat energy that is transferred to the water in the tank by conduction. Therefore, you get hot water without additional energy cost while the aircon is running! In case no aircon split type unit available we can use heat pumps.

Useful technical details (kW…)

Available in single coil or double coil which means it can be connected to a single compressor or two compressors to one Ecogen. The storage tank comes in 60liters, 90 liters, 150liters and 340liters with optional electric backup heater.

Energy-saving potential

Zero operating cost, no direct contact of heating coil with the water, no contamination of stored water by refrigerant in terms of any leakage.

Environmental label obtained

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Solar PV System

Product name: DLIGHT S250

Manufacturer's/company's name: EDWARD MARCS PHILS. INC.

Address : 2/F TIMOG BLDG. EUGENIO LOPEZ ST, SOUTH TRIANGLE, QUEZON CITY

URL: www.edwardmarcsphilinc.com

Phone / fax: (MLA)02-9221371, 922-1657; (CEBU)032-2381972; (DVO)082-2962907

Available in Philippines? YES

Price skylights: PhP 2,500.00 | **Date:** 24.04.2012

Product description (function, technical description, which energy source is needed, made of recyclable materials/recyclability…)

Dlight S250 is a dual purpose solar light and solar mobile charger. The Dlight S250's bright white light illuminates a room similarly to a 3 to 5 watt incandescent lamp, and is up to 5 times more energy efficient. It provides up to 10 times more light than a kerosene lantern. It also charges the most popular mobile phones in the market. It keeps personal mobile phones fully charged even when AC power is unavailable or inconvenient.

Useful technical details (kW…)

It is a light and mobile charging in 1 device and comes with 6 connectors for different cellphones. The light has four brightness settings: bed-low-medium-high. The Solar LED indicator shows the level of battery charge, and the battery is protected with overcharge and deep discharge features. The solar panel is made of high efficiency polycrystalline and is weather resistant.

Energy-saving potential

After a full day of solar charge, the "bed" setting can give light up to 100 hours; the "low" setting for 12 hours; he "medium" setting for 6 hours; and the "high" setting for 6 hours.

Environmental label obtained

Accepted in Lighting for Africa campaign

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